

REMARKS

The Applicants respectfully request reconsideration in view of the following remarks and amendments. Claims 1, 5, 9, and 12-15 have been amended. No claims have been added. Claims 2, 3, 6, 7, 10, 11 and 16-25 were previously cancelled. Accordingly, claims 1, 4-5, 8-9, and 12-15 are pending in the Application.

I. Claim Rejections – 35 U.S.C. § 101

Claims 9 and 12 are rejected under 35 U.S.C. § 101 because the claims are not to a process, machine, manufacture, or composition of matter.

In regards to the rejection of claim 9 and 12 under 35 U.S.C. § 101, these claims have been amended. These amendments are supported, for example, by page 5, lines 11-19 of the Specification as filed. In rejecting these claims, the Examiner alleges that the claims fail to recite patentable subject matter, because they are directed to a signal. As amended, claims 9 and 12 are Beauregard claims, which are patentable subject matter under 35 U.S.C. § 101. Further, although not rejected, claim 15 has also been amended to define a Beauregard claim, because of claim 15's dependence from claim 9. Based on these amendments, the Applicants respectfully request reconsideration and withdrawal of the rejection of claims 9 and 12 on this basis.

In regards to the rejection of claims 1, 4, 5, and 8 under 35 U.S.C. § 101, these claims have been amended to be tied to a particular machine/apparatus (*i.e.* a computer). These amendments are supported, for example, by page 5, lines 20-28 of the Specification as filed. In rejecting these claims, the Examiner alleges that the claims fail to recite patentable subject matter. In accordance with the Interim Patent Subject Matter Eligibility Examination Instructions of August 24, 2009,

“A process claim, to be statutory under § 101, must pass the machine-or-transformation test (M-or-T test), which ensures that the process is limited to a particular practical application...In accordance with the M-or-T test, the claimed process must:

(1) *be tied to a particular machine or apparatus (machine implemented);* or

(2) *particularly transform a particular article to a different state or thing.*

A ‘machine’ is a concrete thing, consisting of parts, or of certain devices and combination of devices...*This definition is interpreted broadly to include electrical, electronic, optical, acoustic, and other such devices that accomplish a function to achieve a certain result*” (emphasis added).

Additionally, the Supreme Court in Bilski v. Kappos reaffirmed the applicability of the machine-or-transformation test as a prime indication of whether a process or method is patentable subject matter. See Bilski v. Kappos, 561 U.S. ____ (2010). Thus, based on the Supreme Court's decision, a process or method tied to a particular machine as defined by the machine-or-transformation test would be patentable subject matter.

As amended, each of the operations of claims 1, 4, 5, and 8 are tied to a particular machine/apparatus (*i.e.* a computer) per the Interim Patent Subject Matter Eligibility Examination Instructions of August 24, 2009 and the Supreme Court's holding in Bilski v. Kappos. Therefore, claims 1, 4, 5, and 8 as amended define patentable subject matter in compliance with 35 U.S.C. § 101, because they are tied to a particular machine or apparatus. Accordingly, the Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 4, 5, and 8 on this basis.

II. Claim Rejections – 35 U.S.C. § 112

Claims 1, 4, 6, 8, 9, and 12-15 are rejected under 35 U.S.C. § 112, first paragraph, failing to comply with the written description requirement. Claims 13-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to the rejection of claims 1, 4, 6, 8, 9, and 12-15 under 35 U.S.C. § 112, first paragraph, the Examiner argues that parts of these claims are directed to Figure 2 of the Application while other parts of these claims are directed to Figures 3 and 4 of the Application. The Examiner alleges that the subject matter of Figure 2 is distinct from the subject matter of Figures 3 and 4 and concludes that claims 1, 4, 6, 8, 9, and 12-15 recite two separate and non-combinable embodiments. However, the Applicants submit that the Examiner's interpretation of the subject matter of the figures is incorrect. Specifically, Figures 3 and 4 describe a new field that may be added to the DirectiveSound nodes shown in Figures 2. See Specification, Page 8, Lines 14-30 and Figures 2-4. Thus, the subject matter shown in Figures 2-4 is not distinct as argued by the Examiner, but the subject matter of Figures 3 and 4 may extend the subject matter of Figure 2 as described in the Specification. Therefore, claims 1, 4, 6, 8, 9, and 12-15 comply with the written description requirements of 35 U.S.C. § 112, first paragraph. Accordingly, the

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 4, 6, 8, 9, and 12-15 on this basis.

In regards to the rejection of claims 13-15 under 35 U.S.C. § 112, second paragraph, these claims have been amended to depend from claims 1, 5, and 9, respectively. As amended, claims 13-15 no longer depend from cancelled claims. Accordingly, the Applicants respectfully request reconsideration and withdrawal of the rejection of claims 13-15 on this basis.

III. Claim Rejections – 35 U.S.C. § 103

Claims 1, 4, 5, 8, 9, and 12-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over “Using XML Schemas to Create and Encode Interactive 3-D Audio Scenes for Multimedia and Virtual Reality Applications” by Potard et al. (“Potard”) in view of “Proceedings of the 2003 International Conference on Auditory Display” by Pihkala et al. (“Pihkala”).

To determine obviousness of a claim: (1) factual findings must be made under the factors set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966); and (2) the analysis supporting the rejection under 35 U.S.C. § 103 should be made explicit and there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. See MPEP §§ 2141(II), 2141(III), and 2142; KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396; see e.g., MPEP § 2143 (providing a number of rationales which are consistent with the proper “functional approach” to the determination of obviousness as laid down in Graham).

In regards to the rejection of claims 1, 4, 6, 8, 9, and 12-15 under 35 U.S.C. § 103, “wherein the spatiality extension information of the sound source includes sound source dimension information that is expressed as $x_0-\Delta x$, $y_0-\Delta y$, $z_0-\Delta z$; x_0 , y_0 , z_0 ; and $x_0+\Delta x$, $y_0+\Delta y$, $z_0+\Delta z$ ” (emphasis added). In rejecting these claims, the Examiner has failed to consider each element of the claims based on the rejection of these claims under 35 U.S.C. § 112, first paragraph. See Office Action, Page 5. However, as noted above, the rejection of claims 1, 4, 6, 8, 9, and 12-15 under 35 U.S.C. § 112, first paragraph was improper. Thus, these elements should be considered in the 35 U.S.C. § 103 analysis.

Further, as previously noted in the Response to Final Office Action filed March 1, 2010, Potard fails to teach or suggest these elements of claims 1, 4, 6, 8, 9, and 12-15. Although Potard

discloses using three-dimensions to describe a location of a sound source (see Potard, § 2.5.2), Potard fails to define a sound source using multiple sets of three-dimensional coordinates as Potard is silent on such a definition of a sound source. By defining spatiality extension information of a sound source using multiple sets of three-dimensional coordinates, claims 1, 4, 6, 8, 9, and 12-15 can provide a more robust sound environment with potentially less total defined sound sources.

As described above, Potard fails to disclose each element of claims 1, 4, 6, 8, 9, and 12-15. Further, the Applicants have been unable to locate any sections of Pihkala which disclose these elements of claims 1, 4, 6, 8, 9, and 12-15. Thus, the combination of Potard and Pihkala fails to teach or suggest these elements of claims 1, 4, 6, 8, 9, and 12-15.

Additionally, claims 1, 4, 6, 8, 9, and 12-15 have been amended to recite “wherein the spatiality extension information of the sound source includes direction information of the sound source extended spatially” (emphasis added) or analogous elements. These amendments are supported, for example, by page 7, line 34 through page 8, line 13 of the Specification as filed. Further, the Applicants submit that Potard fails to disclose these elements of amended claims 1, 4, 6, 8, 9, and 12-15.

In rejecting claims 1, 4, 6, 8, 9, and 12-15, the Examiner contends that Table 1 of Potard discloses “direction information of the sound source” by disclosing directivity of a sound source. However, in Potard directivity (*i.e.* direction information of the sound source) means general direction information of the sound source. That is, directivity as disclosed by Potard does not mean direction information of the sound source extended spatially, because Potard is limited to general directivity instead of directivity with a spatial relationship. In contrast, claims 1, 4, 6, 8, 9, and 12-15 recite direction information of the sound source extended spatially.

For at least the reasons provided above, Potard fails to teach or suggest each element of claims 1, 4, 6, 8, 9, and 12-15. Accordingly, the Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 4, 6, 8, 9, and 12-15 on this basis.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

Respectfully submitted,

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Dated: _____

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